HEALTH AND PHYSICAL EDUCATION

FOR PUBLIC SCHOOL ADMINISTRATORS

BY

WILLIAMS AND BROWNELL

ELEMENTARY SCHOOLS

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PREFACE

The sound development of health and physical education in the public schools is dependent more upon the administrators in charge of the schools than upon the experts in these fields. This curious situation is based on the fact that the power resides in the administrator's office. The absence of adequate standards and guides by which satisfactory programs of health and physical education may be developed, has been realized both by school administrators and by experts in this special field.

This book has been prepared to give, in brief and concise form, the facts, guides, and standards by which administrators may determine policies for health and physical education in the schools.

This volume deals with the elementary schools. Book Two covers health and physical education in the junior and senior high schools.

JESSE FEIRING WILLIAMS
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March, 1930.

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PART I

HEALTH EDUCATION

PART I

HEALTH EDUCATION

As HEREIN defined, health education deals with those features of the public school program primarily concerned with the protection and promotion of student health. Questions and answers in Part I of this book enumerate and explain these features and at the same time attempt to establish standards which may be of use to the school administrator.

Since 1920 several municipalities have used the term "health education" to include the physical education program in addition to the items referred to in Part I. The justification for this procedure is doubtful because, while physical education should contribute to normal and robust health, it has other and perhaps more significant functions exclusive of the health objective. For administrative clarity the physical education program has been assigned a place by itself in Part II of this volume.

INTRODUCTION

1. What is health education?

Health education has been defined as "the sum of experiences in school and elsewhere, which favorably

influence habits, attitudes and knowledge related to individual, racial, and community health." [1] It has also been interpreted more simply as follows: "Health education in the schools may be defined as the procedure employed in supervision and teaching to help children to live healthfully." [2] From this definition it is clear that not only classroom instruction but also many other experiences contribute to the health education of the individual.[3] Many superintendents of schools now regard health education as one of the essential school subjects. In the report, *Cardinal Principles of Secondary Education,*[4] health was placed first in a group of seven objectives.

2. What is the purpose of health education?

The purpose of health education is to secure wholesome environmental conditions and processes for school children, to protect them by scientific methods against communicable disease and the hazards of growth and development, and to instruct them in scientific ways of living in which habits, skills, attitudes, and knowledge will have significant relationships.

[1] Wood, T. D. and Brownell, C. L. *Source Book in Health and Physical Education,* p. 57. The Macmillan Company, New York, 1925.

[2] Burton, W. H. and Others. *The Supervision of Elementary Subjects,* p. 623. D. Appleton and Company, New York, 1929.

[3] Williams, J. F. *Personal Hygiene Applied.* Third Edition, pp. 17-26. W. B. Saunders Company, Philadelphia, 1928.

[4] A Report of the Commission on the Reorganization of Secondary Education appointed by the National Education Association. Bureau of Education, Department of the Interior, Washington, Bulletin, 1918, No. 35.

The more general objectives of health education have been stated as follows:

"To instruct children and youth so that they may conserve and improve their own health.

"To establish in them the habits and principles of living which, throughout their school life, and in later years, will assure that abundant vigor and vitality which provide the basis for the greatest possible happiness and service in personal, family and community life.

"To influence parents and other adults, through the health education program for children, to better habits and attitudes, so that the school may become an effective agency for the promotion of the social aspects of health education in the family and community as well as in the school itself.

"To improve the individual and community life of the future; to insure a better second generation; and a still better third generation; a healthier and fitter nation and race." [1]

3. What is the scope of health education?

Health education includes three fundamental phases. Since children are educated in health through experiencing certain services and activities, as well as through didactic instruction, health examinations and sanitary facilities must be considered as means of education in health together with health instruction. It is a narrow view of health education to limit its scope to

[1] *Health Education,* p. 9. Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, 1924.

specific instruction in matters of hygiene. Within the scope of health education, then, are included:

Health supervision of school plant and school processes.
Health service to school children.
Health teaching of children.

Justification for inclusion of these health agencies under the term "health education" is given in the definition and in other discussions.[1] Classified with regard to supervision and teaching, health education will show two divisions—health service and health teaching.[2]

HEALTH SUPERVISION OF PLANTS AND PROCESSES

4. What is health supervision of school plants and school processes?

The health supervision of school plants deals with those phases of school sanitation commonly grouped

[1] *A Survey of the Educational System of the Philippines,* pp. 450-453. Bureau of Publications, Teachers College, Columbia University, 1925.

Report of the Survey of the Schools of Newburgh, New York, pp. 123-126. Bureau of Publications, Teachers College, Columbia University, 1929.

Report of the Survey of the Schools of Perth Amboy, New Jersey, pp. 137-157. Bureau of Publications, Teachers College, Columbia University, 1929.

[2] Burton, W. H. and Others. *The Supervision of Elementary Subjects,* p. 629. D. Appleton and Company, New York, 1929.

under the older term "hygiene."[1] The health supervision of school processes and the arrangement of school programs comprise what is usually recognized as the hygiene of instruction. Supervision of plants, therefore, includes such topics as building construction, lighting, ventilation, fire protection, cleaning, etc.; under supervision of processes fall such matters as the selection of textbooks with reference to type and paper, the use of writing materials, the length of the school day, recesses, home work, etc.

The instruction of children should proceed in a wholesome environment and without injury to their health. Thus all organization for and administration of instruction is to be viewed not only in relation to the effectiveness of teaching but also with reference to probable effects upon health.

5. Are there sanitary standards for schools?

Yes. These standards represent either the opinion of experts or conclusions from determined facts. In some instances, the facts are not known and responsible opinion must be relied upon. Important sanitary standards are available for the following items: school sites, school buildings, classrooms, gymnasiums, libraries, laboratories, school equipment, lighting, water supply, toilets, heating and ventilation, fire protection, cleaning, decoration, playgrounds and cafeterias.

[1] Ayres, M., Williams, J. F. and Wood, T. D. *Healthful Schools,* pp. v-vi. Houghton Mifflin Company, Boston, 1918.

Among the sources which give standards for these items are the following:

Strayer, G. D. and Engelhardt, N. L. *Standards for Elementary School Buildings.* Bureau of Publications, Teachers College, Columbia University, 1923.

Ayres, M., Williams, J. F., and Wood, T. D. *Healthful Schools.* Houghton Mifflin Company, Boston, 1918.

McLure, J. R. *The Ventilation of School Buildings.* Bureau of Publications, Teachers College, Columbia University, 1924.

Reeves, C. E. *An Analysis of Janitor Service in Elementary Schools.* Bureau of Publications, Teachers College, Columbia University, 1925.

Thomas, M. W. *Public School Plumbing Equipment.* Bureau of Publications, Teachers College, Columbia University, 1928.

6. Are there health standards for the hygiene of instruction?

It is essential that schools be conducted in such a way that they safeguard and promote health. The program should be so arranged that undue fatigue is not experienced by children during the late afternoon. No program can be regarded as hygienic if it overtaxes children either mentally or physically, or fails to provide a proper balance between work, play, rest, and the taking of nourishment.

The results of the annual health examination may be used effectively to determine the needs of children. On the physical side, attention should be given to factors that influence unfavorably posture, vision, and

hearing, such as improperly adjusted seats, gray blackboards, unshaded windows, glazed paper, loud noises, etc. Children suffering from defective vision or defective hearing should be seated as advantageously as possible.

7. What are some of the more important things which school administrators should know concerning the hygiene and sanitation of school plants?

Most administrators and executives recognize the importance of school hygiene and sanitation. Proper surroundings are as important as trained leadership and skilled instruction. The school site should be a well-drained, quiet, safe place. Buildings located near railroads or near streets where the traffic is unusually heavy are unsafe. One hundred square feet of play area per child represents a minimum amount of space. Other things being equal, it is desirable to locate school buildings opposite permanent playgrounds or parks. All school buildings should be of fireproof construction. Most state laws govern this factor as well as the erection of fire escapes.

The heating, lighting, and ventilation of buildings are extremely important. Research conducted by the New York State Ventilation Commission indicates that the chief factors of heating and ventilation are (*a*) temperature; (*b*) humidity; (*c*) air movement.[1] While the standard temperature is 68 degrees Fahren-

[1] *Report of the New York State Commission on Ventilation.* E. P. Dutton & Co., New York, 1923.

heit, it is maximum and a range of 63 to 68 degrees is suggested. Humidity should approximate 35 to 60 per cent saturation. Open-window ventilation is superior to that secured by mechanical systems.[1] Windows should extend to the ceiling, with glass area equal to one-fifth to one-fourth of the floor space. Cross lighting is to be avoided. The best arrangement assures the entrance of the light so that it falls over the left shoulder of each pupil. Artificial lighting should be of the indirect type.

Modern school buildings are equipped with gymnasiums or playrooms. The practice of placing these rooms in school basements is to be condemned. They are better located in a wing, where ventilation and sunlight may be obtained from not less than two sides. They should be at least three times as large as class rooms (2,200 to 2,400 square feet).

Toilets and washrooms should be designed to allow sunlight to reach remote corners. A safe standard is to provide one seat for every fifteen girls, one seat for every twenty-five boys, and one urinal for every fifteen boys. Lavatories, equipped with liquid or powdered soap and paper towels, should be placed near the toilets. The use of common towels is forbidden in some states.

In most communities purity of the drinking water is safeguarded by the board of health. If there is any

[1] McLure, J. R. *The Ventilation of School Buildings*, p. 110. Bureau of Publications, Teachers College, Columbia University, 1924.

doubt in the matter, bacteriological tests should be made and steps taken to rectify unhealthful conditions. Drinking fountains of the correct height should be erected. A satisfactory standard is the provision of at least[1] one drinking fountain for every seventy-five children. Tin cups, or the antiquated water bucket, should never be used.

Movable furniture is recommended for all classrooms. Some one person in each school should be charged with the responsibility of properly adjusting classroom seats. In the correct sitting position, the feet rest easily on the floor with the thighs supported by the back of the chair. There is no pressure under the knees.

Rest-rooms should be provided in all school buildings of four or more classrooms. They may be placed next to the nurse's room or the office. Several cots are essential, as well as a lavatory, a sink, running water, soap, towels, and a well-stocked first-aid cabinet.

The best blackboards are made of slate or some similar material. They should never be placed between the windows; so placed they may cause eyestrain. Chalk trays covered with a light-meshed screen are preferable. Erasers should be cleaned outside of the classroom by adults, never by children. Practically dustless chalks which are now available should be used.

[1] Thomas, M. W. *Public School Plumbing Equipment.* Bureau of Publications, Teachers College, Columbia University, 1928.

8. What should teachers know about the hygiene and sanitation of school plants?

Since teachers are more vitally concerned with the children themselves than with the subject matter which they teach, it is essential that they develop a consciousness and an understanding with regard to the health factors of the school plant and equipment. Classrooms should be clean, properly heated, well lighted, and well ventilated. The use of sweeping compounds and a good grade of floor oil minimizes the dust. The best types of dust cloths are those which have been dipped in an oil preparation and partially dried. The standard classroom temperature is 68 degrees Fahrenheit, although a range from 63 to 68 degrees is satisfactory. Every classroom should be equipped with a thermometer placed on a level with the heads of children seated. Cross lighting is to be avoided if possible. The best arrangement is to have light enter from the left of the pupil. Artificial lighting should be indirect. Open-window ventilation is preferable to that secured by mechanical devices. Window boards should be used, however, to prevent drafts in cold weather.

9. What are some of the newer developments in supervision of school plants?

On account of increased cost, without an apparent compensating efficiency, mechanical ventilating systems have little, if any, advantage over the window-

gravity plan of ventilation.[1] As a matter of fact, many specialists prefer the latter type.

All school floors should be cleaned daily. Corridors and stairs may be cleaned during the day, and classroom floors cared for after school hours.[2]

From the standpoint of cleaning and oiling floors, movable furniture is preferable to fixed seats and desks.

Scrubbing machines are more efficient than other types of mechanical cleaning devices. The cost of these machines is low enough to permit their use in most elementary schools.[2]

Floor oiling by means of a spraying machine is more economical and efficient than floor oiling by any other method.[2]

Deodorants in toilets are condemned as contributing not to cleanliness, but to covering up the need of cleanliness.[2]

Blackboard erasers can be cleaned best by vacuum.[2]

HEALTH SERVICE

10. What is health service?

Health service comprises the several administrative procedures designed to determine the health status of the child, to inform parents of the defects that may be present, and to help in every possible way in the prevention of disease and in the correction of remediable

[1] McLure. *Op. cit.* [2] Reeves, C. E. *An Analysis of Janitor Service in Elementary Schools.* Bureau of Publications, Teachers College, Columbia University, 1925.

defects. The older term "medical inspection" is not used in this connection because its function was chiefly inspectional, whereas the prime purpose of health service is to prevent and correct.

Health service includes, then, an annual health examination; regular inspections at frequent intervals for signs of communicable diseases; measures to prevent the spread of contagion; follow-up services to secure correction of remediable defects; the use of the family physician, clinics, hospitals, special classes, and other organizations for the care and treatment of children in need of special services. The adoption of the kind of health services available in many of the best universities is the next step in the adequate care of the health of children in the public schools.[1]

11. How common are physical defects among school children?

An analysis of the extent of physical defects among school children shows clearly the need of definite health supervision. Forward-looking programs will be concerned not only with detecting these defects, but also with the correction and prevention of them. This combined service may be expected to improve the health of school children and to result in an enormous economic saving. According to Wood and Rowell not more than 5 or 10 per cent of children are free

[1] Wood, T. D. and Rowell, H. G. *Health Supervision and Medical Inspection of Schools.* W. B. Saunders Company, Philadelphia, 1927.

from remediable health handicaps.[1] From a recent report of the United States Bureau of Education, the following statistics concerning physical defects among school children are available:[2]

Defect	Per Cent of School Children with Defects
Teeth	80 to 90
Vision	10 to 12
Hearing	3 to 7
Tonsils	14 to 16
Nasal Obstruction	9 to 12
Malnutrition	10 to 25

12. Is there any significant relationship between pupil progress and physical defects in children?

The majority of school health authorities are in agreement that children suffering from serious physical defects cannot attain their normal and potential mental achievements. A study by Harlan of 361 poorest and 387 best pupils in eight grades indicates that the poorest pupils show 29 per cent greater defectiveness.[3]

Since the school is increasingly responsible for the child's education, physical as well as mental, an effort should be made to improve and to protect his health as well as to develop his intellectual aptitudes. It is

[1] Wood, T. D. and Rowell, H. G. *Op. cit.*, p. 260.

[2] *Physical Defects of School Children.* Bureau of Education, Department of the Interior, Washington, 1929, Bulletin No. 15.

[3] Harlan, C. L. "A Consideration of Physical Defects of Best and Poorest Students." *The Nation's Health,* November, 1926, pp. 745 f.

an unsound educational policy which strives to increase mental learning without regard for the presence of remediable physical defects.

A study of the health defects of Cleveland children shows a higher total percentage of defects in significant items among "failures" than among the general group. These comparisons do not present evidence of cause and effect relationship, but are at least indications of greater handicapping resulting, in part, from the presence of defects. The tabulations for the Cleveland study follow.

MEDICAL INSPECTION REPORT, CLEVELAND PUBLIC SCHOOLS, BUREAU OF PHYSICAL WELFARE, DEPARTMENT OF HEALTH EDUCATION

SEPTEMBER—OCTOBER—NOVEMBER, 1926

	GENERAL GROUP			FAILURE GROUP		
	Boys	Girls	Total	Boys	Girls	Total
Number Examined	8045	8218	16263	2348	1592	3940
Teeth	55.8%	39.4%	47.5%	51.5%	47.4%	49.8%
Tonsils	12.6	11.2	11.9	17.2	18.8	17.9
Adenoids	10.8	7.5	9.1	11.5	10.5	11.1
Glands	3.8	3.3	3.5	...	...	...
Nasal Obstruction	2.6	1.4	2.0	...	...	...
Hearing	3.8	2.2	3.0	2.3	2.9	2.6
Vision	3.9	3.4	3.6	3.7	4.1	3.9
Anæmic	1.3	.69	.97	...	...	...
Scoliosis	.35	.35	.35	...	...	...
Nutrition	12.1	16.4	14.2	14.9	19.3	16.8
Chorea	.22	.28	.25	...	...	...
Chest	.69	.68	.68	.77	.88	.81
Heart	2.4	2.5	2.5	1.9	2.2	2.1
Goiter	2.1	12.9	7.5	4.5	9.8	6.6
Others	7.4	4.6	6.0	9.5	7.5	8.7

13. Should the board of health or the board of education be responsible for the health of school children?

Although some states have passed laws to the effect that the health of school children should be supervised by boards of health, the weight of evidence favors the establishment of this service under the direction of boards of education. Among the arguments presented by advocates of each plan, the following are selected as most common:

1. Arguments favoring *board of health* control:

   Boards of health possess power which is not delegated to the school (control of communicable disease). The board of health serves individuals during the preschool life of the child and after school is ended. This service should not be interrupted for the period the child is in school. Moreover, the board of health employs a personnel and provides facilities which should not be duplicated. In short, school authorities should coöperate with the board of health instead of instituting a service which parallels one already in existence.

2. Arguments favoring *board of education* control:

   School health supervision is primarily educational in its scope. In such matters school authorities should have control, since they are in a better position than any other group to determine existing needs and satisfactory procedures. The control of communicable diseases is but a small part of the entire school health program, which embraces many activities, such as periodic health examinations, follow-up for the cor-

rection of remediable defects, health supervision of plant and equipment, health instruction and like service. Better coöperation may be secured from homes because parents are accustomed to dealing with the school; whereas the board of health is looked upon as a police agency. That teachers coöperate better with school health authorities is proved by experience, since such authority places all under the same directing influence. Schools are conducted primarily for the education of children, a fact which implies the development of the child's physical potentialities as well as his mental aptitudes.[1]

14. To what extent is the school superintendent responsible for the health of school children?

As the chief administrative officer, the superintendent is responsible for the protection of the health of school children. At present it is not generally conceded that his responsibility in this direction is as great as his responsibility for the intellectual progress of the children in his care. The comparison, however, is a matter of degree rather than of kind. Modern education, with its concept of assisting pupils to obtain their maximum potentialities as a means of furthering social progress, has paved the way for phenomenal advancement in school health work. In brief, the superintendent should set as his goal the following standards:

1. An annual health examination of all school chil-

[1] Ayres, M., Williams, J. F., and Wood, T. D. *Healthful Schools,* pp. 214-215. Houghton Mifflin Company, Boston, 1918.

dren by a physician, with reëxamination for those found with remediable defects.

2. A follow-up program leading to the correction of remediable defects.

3. Morning health inspection of all school children by the teachers in the elementary school.

4. Vaccination against smallpox for all children unless excused on account of religious beliefs or by a physician's certificate.

5. Immunization against diphtheria for all susceptible cases as defined above.

6. Provision for clinics and special classes for children in need of such aid.

7. Hygienic and sanitary school plants and equipment.

8. A school plant and program which will not cause undue fatigue.

9. Teachers who are free from unsightly orthopedic defects.

10. School feeding for those in need of such service.

11. First-aid and safety provisions in all the schools.

12. A definite program of health instruction leading toward the inculcation of desirable habits and attitudes based upon scientific health knowledge.

15. What is the school's responsibility in the correction of remediable defects?

Modern education supports the principle that all children should be provided, in so far as possible, with

the opportunity to develop their optimum potentialities. Numerous special aids in the form of instruction and equipment are provided at public expense for children who exhibit slightly inferior mental qualities. Moreover, it is clearly understood that physical defects are likely to interfere with mental accomplishment. All things considered, the school must accept a greater responsibility than formerly for the correction of remediable physical defects. Occasionally, more progressive boards of education do provide clinics and special classes for this purpose.

In some communities the policy has been adopted that parents shall be informed regarding the existence of such defects among their children and urged to consult the family physician or dentist for further examination or correction. This represents a minimum of responsibility for the school. Education for complete living represents something more than academic knowledge, despite the importance of this factor. If public education is to serve most fully in furthering social progress, the ultimate goal of such education presupposes sound minds and sound bodies. Hence it is not too much to expect that increasing efforts will be made to provide medical and surgical services for all school children in need of treatment who are not cared for by the home.

Those who oppose this plan on the ground that it interferes with individual rights are expressing arguments formerly voiced against free education.

16. What equipment for health service should be available in the elementary school?

Every school should have a health service room where examinations can be held, first-aid treatment given, and conferences conducted with parents. This room should face the north and should be 25 feet in length, so that vision tests can be made readily.

An enameled steel cabinet should be available for supplies used in the examination and in first aid, such as tongue depressors, alcohol, thermometer, sterile cotton, etc.[1] Chairs, tables, and a couch should be included. The first-aid materials should be kept in this room in a place especially selected for them.

In the arrangement of rooms for health service, a suite of two rooms is needed so that children may undress in one, pass to the other for the examination, and return to the first for dressing. To conduct examinations in halls, auditoriums, and classrooms is unsatisfactory and worth little in comparison with what could be accomplished with adequate facilities and equipment. The school rest-room should be in close proximity to the health service unit.

17. Who should examine children?

It is widely held that only physicians and dentists should examine children in the schools. If such persons can be secured to examine all the children thoroughly, this is most desirable. At present, however,

[1] See section dealing with first-aid supplies, pages 48-49.

financial limitations render this procedure impossible in many communities. On the other hand, nurses and dental hygienists especially prepared for school work may be entrusted with certain phases of the examination, and the classroom teachers themselves can be trained to assist. In Detroit and in New York City, classroom teachers play an important part in the examination. For this work it is essential to instruct the teachers in the scope of their services as well as in methods to be used.

It should be noted that in some states only physicians may legally examine children.

18. Should a corps of specialists be employed as health examiners, or should each physician make the complete examination?

There are arguments in favor of either plan. It is commonly agreed that the general practitioner cannot make as thorough an examination as a corps of specialists. However, where specialists are employed, there is the danger that children will be considered as biological specimens, with consequent disregard for individual personalities. Also, there is to be considered the fear of the doctor which many children have. Passing the child from one physician to another is likely to increase rather than decrease this fear. One of the chief values of the annual health examination, properly conducted, is the development of an intelligent understanding of professional health service. The

child needs to learn that the physician and the dentist are his friends.

The weight of evidence favors the employment of general practitioners instead of a corps of specialists. Where the latter method is used, some one physician should act as a health coördinator who will take into account the diagnoses of the different specialists.

19. What kind of health examination should be given?

In some states, laws prevent the removal of clothing for purposes of examination. This makes effective examinations very difficult, if not impossible. Careful postural, cardiac, orthopedic, and genital examinations are impossible without the removal of clothing.

If laws thus prevent, then eye, ear, nose, mouth, throat, and neck are about the only items that can be inspected adequately. Cardiac examinations without removal of clothing will detect only the more obvious cases that probably have been previously recognized in the home.

It is desirable to provide a thorough examination for every child in school. This can be secured only if the public is educated to desire the best available scientific means of educating its children. In some communities public support for thorough examinations has been secured by urging parents to be present at the time of the examination. It should be remembered that the coöperation of parents is essential for the success of a health education program.

20. What is meant by a "standardized examination"?

In examining school children, physicians may vary in their classification of health defects; hence some will report a larger number of certain defects than others in the same group.[1] When several examiners are working, it is important to have an agreement on such matters. Determination of what constitutes abnormality in tonsils, adenoids, flat feet, adenitis, etc., requires that a "standardized examination" be set up as the basis for diagnosis and classification.[2] This is done in clinical sessions before the work of school examinations begins.

21. How frequently should children be examined?

It is recommended that all children in the public schools receive an annual health examination by a physician. Those found with certain remediable defects should be reëxamined at periodic intervals. In districts where annual health examinations are impossible, it is suggested that the emphasis be placed upon children entering kindergarten or grade one, grade three, grade six, grade nine; those entering the school system from other districts or any children entering for the first time; and those referred to the physician by nurses or teachers. Each school should strive, however, for an annual health examination for every child.

[1] *Baltimore School Survey,* Vol. 2, pp. 259-262, 1921.

[2] Hoag, E. B. and Terman, L. M. *Health Work in the Schools,* pp. 22-23. Houghton Mifflin Company, Boston, 1914.

22. Why should health examinations be completed early in the school year?

Health examinations should be completed as early in the school year as possible in order that corrections of remediable defects can be made and the educative processes of the child permitted to develop normally. Under favorable conditions it is desirable to complete the regular examinations by the first of November. For educational purposes the early examination is always preferable. The Summer Round-Up, fostered by the National Parent-Teacher Association, is an excellent example of an organized effort to admit first grade children to school, free from remediable physical defects.

23. Should parents be present when health examinations are given?

Many of the defects of children can be corrected only by the active coöperation of the parent and child with school authorities or family physician. The practice of regarding school children merely as biological specimens that happen to have defective tonsils, running ears, and flat feet should be stopped. Through the procedure used, recognition should be given to the fact that in health examinations we are dealing with personalities that are forming attitudes toward or away from scientific health care. Our present knowledge of attitudes is adequate, but the application of procedures is too long delayed. Much of the health exam-

ination given in public schools is perfunctory, short-sighted, and lacking in educational content.

The educational values of the examination are tremendous. The evidence may call for commendation of past efforts or corrections and the initiation of new ones. To conduct the examination in accordance with the best standards, it is highly desirable to have a parent attend. The presence of parents is effective in furthering public support for the school health program. If the parents cannot attend, it is even more important to safeguard the educational values of the examination for the child. Absence of parents should not mean a less careful examination, but rather a more careful one.

24. What are some of the common faults in health examinations as now conducted in public schools?

1. Perfunctory examinations by physicians.

2. Neglect of children with obvious signs of health disturbances, such neglect resulting from a scheduled routine in which such items are not listed.

3. Emphasis upon detection of defects and neglect, in whole or in part, of preventive and corrective measures.

4. Treating children as biological specimens, as tonsil cases, or adenoid cases, or the like, when the psychology of the situation requires recognition of them as individuals, if wholesome educational influences are to operate.

5. Poor organization for the conduct of health service resulting from inadequate equipment, insufficient remuneration of physicians, and examiners employed on a part-time basis with their main interests outside the schools.

6. Examination of only a few children instead of all children.

7. Lack of a standardized examination.

8. Examination not given often enough—the standard is an annual examination by a physician.

9. Allowing the period for examinations to extend until the spring of the year. Remediable conditions should be noted early and corrections made as soon as possible.

25. How do medical inspections differ from health examinations?

During health examinations the child's entire physical and mental personality is considered. Medical inspections, on the other hand, are conducted to detect specific abnormalities. For example, medical inspections should be given on the opening day of school to exclude carriers of transmissible diseases. Similar inspections are of value after vacations of several weeks, and during epidemics.

26. What kind of record cards should be used?

The record cards for a complete examination which are illustrated on the following pages show desirable types.

A PHYSICAL RECORD CARD

The Commonwealth of Massachusetts
DEPARTMENT OF EDUCATION
PHYSICAL RECORD

Name _____ Town (City) _____
Address _____ Parent _____ Occupation _____
Date of Birth* _____ Sex _____ Birthplace, Father (Country) _____
Place of Birth _____ Birthplace, Mother (Country) _____

| | | |

Record of Defects Requiring Treatment				Personal History		Names of Other School and Pre-School Children in Family (first name)
Date	Defect	Treatment	Result		Date	
				Vaccination		
				Chicken Pox		
				Measles		
				Mumps		
				Whooping Cough		
				Scarlet Fever		
				Convulsions		
				Poliomyelitis		
				Tuberculosis		
				Rheumatism		
				Diphtheria		
				Toxin Antitoxin Third Treatment		
				Negative Schick		

Notes:

This card should not be given to the pupil. In case of transfer to another town or city the card should be mailed to the Superintendent of such town or city.

chusetts, Department of Education.

A HEALTH AND GROWTH RECORD CARD

HEIGHT-WEIGHT CHART

Date of Birth

Grade Year	Ht. Sept.	Wt. Sept.	Wt. Oct.	Wt. Nov.	Wt. Dec.	Ht. Jan.	Wt. Jan.	Wt. Feb.	Wt. Mar.	Wt. Apr.	Ht. May	Wt. May
19 . .												
Stand.												
% Var.												
19 . .												
Stand.												
% Var.												
19 . .												
Stand.												
% Var												
19 . .												
Stand.												
% Var.												
19 . .												
Stand.												
% Var.												

DIRECTIONS

For HEIGHT-WEIGHT CHART (above). Obtain the standard weight for each child from the Baldwin-Wood Height-Weight-Age Tables. Opposite % Var., mark the computed per cent, using + when overweight and — when underweight.

For WEIGHT CURVE (page 1). One space = one pound. Using either the child's actual weight or the standard weight, whichever is lower, for the point marked Low Point on the Scale Column, cut off a section of the numbered strip (following directions given on the strip) and paste it in place in the Scale Column. Using this individual scale, plot the child's actual weight each month (S=September, O=October, etc.). Plot his normal weight only when height is taken. In plotting, place dots in the middle of each space. Connect adjacent dots to form a graph.

Published by Bureau of Publications, Teachers College, New York City, 1925. Copyright 1925 by T. D. Wood and H. G. Rowell
5 Ws 7. 29. 3.

HEALTH AND GROWTH RECORD (Wood-Rowell)

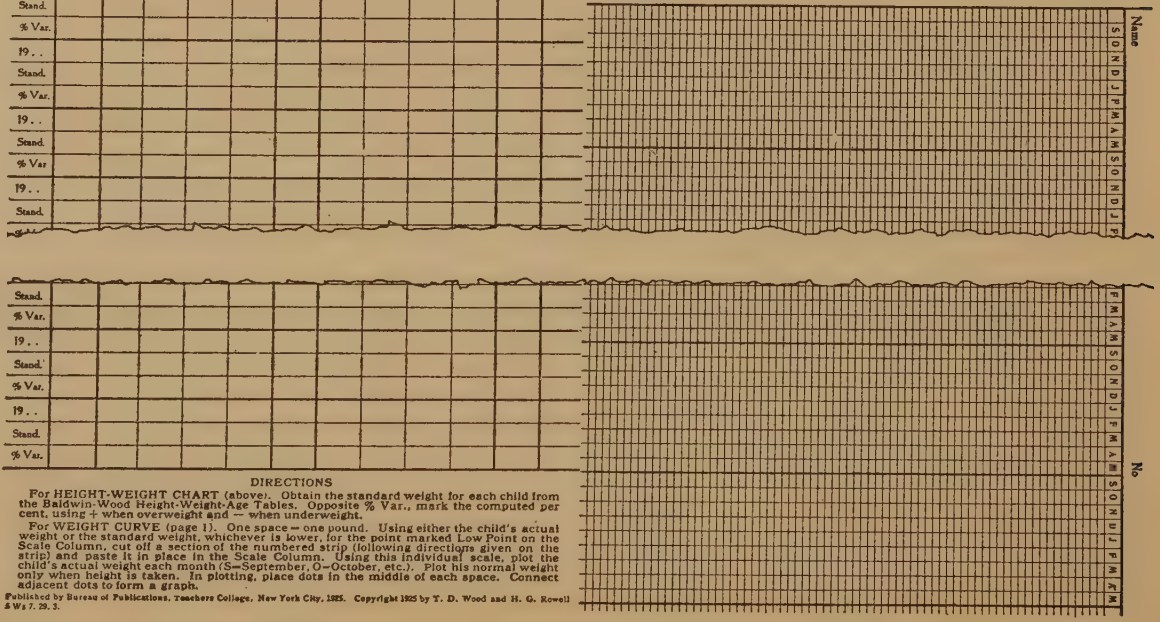
WEIGHT CURVE

Name No.

LOW POINT ▽

See page 4 for directions

SCALE COLUMN



Published by Bureau of Publications, Teachers College, Columbia University, New York City. (A numbered strip to show weight-range for an individual accompanies this record card.)

Name..... Date of Birth.....
LAST FIRST MIDDLE

Date	19 Ba. Br.	19 Ba. Br.	19 Ba. Br.	19 Ba. Br.	19 Ba. Br.	19 Ba. Br.	Follow Specially
Grade							
Age							
Weight							
Height							
" sitting							
Girth Chest, full expir.							
" " " inspir.							
Lung capacity							
Strength, right forearm							
" left "							
Hearing, right ear							
" left "							
Vision, right eye							
" left "							
Astigmatism, R., L., B.							
Vision with glasses, R.							
" " " L.							
Condition, right eye							
" left "							
Speech defects							
Teeth, caries							
" tartar							
" eruption							

Notes

Page 2

No..... School.....

	19	19	19	19	19	19	Follow Specially
Nose							
Throat							
Adenoids							
Tonsils							
Glands, cervical							
" thyroid							
Lungs							
Heart, rate							
" condition							
Hernia							
Scar, vaccination							
" operation							
Skin							
Posture							
Shoulders							
Abdomen							
Spine							
Foot, right							
" left							
Nervous condition							
General "							
Nutrition, height							
" weight							
Adol.							

Notes

Page 3

27. Will the average physician do good health work?

The average physician will not do good school health work. The position of school health physician is often sought by young doctors who conceive of the position only as a source of income and an opportunity to establish a practice. In some instances, older men who have lost their practice take up this work to supplement a vanishing income. School physicians should be selected for their interest in the school health problem; preferably they should be on a full-time salary basis and the opportunity in rank and in salary should be made attractive enough to secure competent men. One full-time physician with sufficient administrative ability to organize the school nurses and the classroom teachers will do more for the children than ten physicians, each giving one-tenth of his time to school health work.

28. What are the duties of school physicians?

These duties vary in different communities. In summary, it may be stated that the function of the school physician is to—

1. Conduct periodic health examinations of school children.

2. Give medical inspections at the opening of school; after prolonged vacations; and whenever epidemics appear to threaten the school population.

3. Examine the members of interscholastic athletic teams.

4. Examine children registering for the first time, unless evidence of recent examination is presented.

5. Reëxamine students upon request from school authorities.

6. Examine all children applying for work certificates.

7. Examine teacher applicants, and those returning from leave of absence due to illness.

8. Check all requests for permission to be excused, or excuses from physical education activities.

9. Keep examination records up to date. The health record card with its notations should follow the child through the public schools.

10. Exercise general administrative responsibility over the follow-up program for the correction of remediable defects.

11. Administer such vaccination and immunization programs as may be desirable for the control of certain communicable diseases.

12. Coöperate with the local board of health in the control of communicable diseases.

13. Act as an adviser to parents and school authorities in matters pertaining to the health of school children.

14. Give health lectures to children, parents, and teachers.

15. Administer the inspection pertaining to the hygiene and sanitation of the school plant and equipment.

16. Administer the Summer Round-Up of preschool children for health examinations and immunizations.

17. Provide suitable publicity for the maintenance and promotion of the school health program.

18. Confer frequently with the local medical society in the development of the school health work.

29. What should be the salary of a school physician?

Primarily, a physician should be considered a part of the school personnel, governed by definite regulations as to employment, salary, certification, supervision, and retirement. The salary should be commensurate with the length of time required to obtain the M.D. degree. Under normal conditions the minimum will be from $3,500 to $4,000 for full-time service, even in rural communities. Part-time work may be prorated according to the time spent in school work. In the larger cities it is safe to assume that school physicians should be placed on a salary scale slightly above that of the elementary school principals.

30. What are the duties of school nurses?

School nurses employed by boards of education may be expected to—

1. Assist physicians with the periodic health examinations of school children.

2. Inspect children for abnormal physical conditions, when the services of a physician are not available.

3. Conduct the necessary follow-up program for the correction of remediable defects found in school children, e.g., notices to parents, home visitation, etc.

4. Keep an accurate account and record of all remediable defects, the corrective measures employed, and the results obtained, by inserting the proper notations on the examining card.

5. Inspect for communicable diseases, referring doubtful cases to the school physician.

6. Assist the physician with the immunization program.

7. Inspect for skin and scalp infections and assume the responsibility for the correction of the same.

8. Inspect the hygiene and sanitation of the school plant and equipment.

9. Render first aid in emergency cases and give first-aid instruction to teachers and children.

10. Instruct teachers and coöperate with them in providing daily health inspection of pupils.

11. Assist teachers with health instruction through talks and demonstrations.

12. Instruct parents in matters pertaining to the health of children.

13. Attend teachers' meetings and institutes.

31. What should be the salary of a school nurse?

Like the school physician, the nurse should be considered a part of the school personnel with regard to employment, salary, certification, supervision, and re-

tirement. Since the nurse's training approximates that required of the better classroom teachers, she should be paid accordingly. Under normal conditions an efficient nurse cannot be employed for less than $1,500 in addition to traveling facilities; the average salary is about $1,800.

Frequently boards of education fail to provide increases in salary for nurses, even though a progressive salary schedule is in operation for other school officials. There is no justification for this practice. Nurses are entitled to increases in salary on the same basis as teachers. It follows, of course, that regulations regarding the summer study of teachers should be applicable also to nurses.

32. How may classroom teachers assist in supervising the health of children?

The classroom teacher is in close contact with her children. This contact indicates that she may be an influential factor in the promotion of school health supervision. Many of the more progressive professional training institutions give special instruction in this work. Teachers-in-service may become qualified for certain phases of health supervision by instruction received from school physicians and nurses. The following activities of concern to teachers represent a minimum:

1. The morning health inspection.
2. Inspection for symptoms of communicable dis-

eases, referring suspicious cases to proper authority.

3. Annual health survey.
4. The hygiene of instruction.
5. Assistance with the follow-up program.
6. The hygiene and sanitation of school plant and equipment.
7. Care of her own health.

33. What can classroom teachers do in the morning health inspection?

Every elementary teacher should conduct a daily health inspection of her pupils at the beginning of school. The chief objectives in such inspections are as follows:

1. To motivate and to establish desirable health habits.
2. To note early symptoms of illness among children and to refer such cases to the proper health authorities.

In checking the health habits of children, only those items should be included which can be measured objectively, such as cleanliness of hands, face, nails, ears, neck, handkerchief and clothing; hair combed and brushed; shoes cleaned and polished; overshoes and outer wraps removed. The practice of scoring home habits and of inquiring of children regarding the amount of fresh vegetables eaten, number of baths taken, and number of hours spent in sleep often leads

to false statements. Such scoring is satisfactory and very desirable if the children are asked to keep records for themselves. Thus, they are stimulated to practice certain hygienic rules, rather than to make false statements.[1]

34. How may morning health inspection be made interesting to young children?

Pupil monitors, called health inspectors, may assist the teacher in conducting the health inspection in the grades above the third.[2] The monitor may choose for each row an assistant, who serves for one week. At the opening of school each morning the chief inspects his assistants, who in turn pass down the aisles noting symptoms of uncleanliness.[3] The assistants report to the chief the conditions of each group. In this report, the names of the offending children are omitted, but are later given to the teacher.

As soon as pupils have been inspected they pass in single file in front of the teacher who looks carefully for such conditions as: unusual pallor, flushed face, inflamed or watery eyes, running nose, pediculosis, or rash of any kind. Pupils should be encouraged to report to the teacher such conditions as: sore

[1] Williams, J. F. and Dansdill, T. *Health and Control,* p. 14. Book Three of Wholesome Living Series. Benj. H. Sanborn & Co., Chicago, 1929.

[2] This honor should be conferred for a limited time, not over one month, in order that several pupils can hold office during the year.

[3] Items to be included in the inspection are given on pages 40-41.

throat, dizziness, or nausea. Occasionally a child will be found with one or more of the above indications of illness. Such cases should be reported to the school nurse or physician at once. The school health inspector may present a flag to the row with a perfect cleanliness record.

The following method has been used effectively to interest children in the morning health inspection. A wheel made of cardboard, approximately two feet in diameter, is hung in front of the room. Spokes in the wheel are labeled with the various items of the inspection. On two or three of the spokes the word "all" is inserted. Each morning the health inspector spins the arrow which is attached to the hub of the wheel. Should the arm stop at the spoke containing the word "hands" the inspection for that morning consists in inspecting for this item only. Pupils are required to care for all the health duties because no one knows where the arrow will stop. The game idea involved in this method stimulates the interest of children.

For very young children a ship, perhaps called the "Mayflower," may be used. When a pupil meets all the inspection requirements he is allowed to write his name on a slip of paper and place it in the ship. The object is to have all the children aboard the "Mayflower."

Teachers should adopt the method of classroom inspection which proves most successful.

35. What signs and symptoms of health disturbances should teachers know?

Diseases and disturbances of organic functions show themselves in certain signs and symptoms. Classroom teachers in daily contact with children are in a position to recognize variations from normal. Some of the signs of abnormality among children require immediate attention (reference to the physician, nurse, or home); others, not acute in type, may be handled in a routine manner. The following are the common signs of health disturbance or disease that should have immediate care (Class 1), and those that should have routine care (Class 2):

Class 1

Signs that children may show:

1. Cough
2. Convulsions
3. Eruption on the skin
4. Fainting
5. Nausea
6. Running nose
7. Temperature rise
8. Vomiting
9. Flushed face
10. Unusual pallor

Symptoms that children may tell:

1. Chill
2. Dizziness
3. Headache
4. Pain in chest or abdomen
5. Sore throat

Teachers should be trained for this important work. If adequate training is not given in the normal school, it should be provided by those responsible for the school health work.

Class 2

Signs that children may show:

1. Chronic cough
2. Decayed teeth
3. Mouth breathing
4. Malnutrition
5. Nail biting
6. Nervous twitching
7. Offensive breath
8. Impaired physical development
9. Stammering or stuttering
10. Temper or emotional upsets
11. Toeing out of feet
12. Uneven shoulders
13. Vision defects
14. Defective hearing

Symptoms that children may tell:

1. Difficulty in hearing
2. Difficulty in breathing (nose and throat)
3. Frequent desire to go out
4. Loss of appetite
5. Pain in feet or legs
6. Unwillingness to play with others
7. Feeling tired
8. Difficulty in seeing blackboard writing
9. Inability to hear instructions given

36. Are special classes conducted for children with health defects?

In large cities where there are numerous cardiac, orthopedic, or otherwise handicapped children, it is the practice to organize and conduct the education of these children in special classes. Thus there are classes for cardiacs, classes for cripples, classes for speech defectives, etc.

On account of the widespread interest in nutrition, many of the smaller cities have special classes for malnourished and pre-tubercular children. By means

of this organization the teaching program is easily adjusted to the needs of certain handicapped children. Very often these special classes are conducted under more sanitary conditions and with better hygienic safeguards than those established for normal children.

37. Is not the teacher's health as important as that of her pupils?

Yes. It is important that the teacher's health be kept at a high standard, both for her own personal benefit and because of its effect upon school children. Impressionable youth is affected more by the teacher's example than by her precepts. Every teacher should have a thorough health examination annually and should visit the dentist twice a year. As a matter of fact, the school health facilities should be available to teachers as well as children. Some school boards require applicants for teaching positions to present evidence of a recent health examination as a condition of employment. Several states provide a thorough health examination for intrants to professional training institutions.

38. Should the school health program include vaccination and other immunization measures?

Long ago vaccination against smallpox and immunization against diphtheria passed the experimental stage and their value became established. The efficacy of these measures in preventing two serious communi-

cable diseases is well known. In some communities, misinformation and fears fostered by unscientific persons for ulterior purposes result in failure to employ these modern measures. We often express delight in the achievement of a scientist who gives to the world a protection against disease, but this protection is a will-o'-the-wisp until individuals become wise enough to use the service made available.[1] It is the duty of the school to educate the community in the scientific care of the health of its children as much as to awaken them to the need of educational opportunity for its children. The school health program presents an opportunity for such scientific education. It is a common practice to follow the educative campaign with notices sent to parents urging them to give their written consent to vaccination and immunization of school children. Students are sometimes excused from these protective measures by reason of certain religious beliefs or by requests from family physicians. Boards of education may, however, rule that all children attending the public schools shall be vaccinated.

39. Is vaccination dangerous?

Vaccination is safe, harmless, and efficient. It is the only effective method for the prevention of smallpox. Instances of injury are the result of secondary

[1] Williams, J. F. *Hygiene and Sanitation,* Second Edition, Chap. I. W. B. Saunders Company, Philadelphia, 1930.

infection, use of contaminated virus, and faulty technique. Under proper conditions, no other single measure can be followed by the parent with an equal chance of success in prevention of the disease.

The occurrence of epidemics in communities that have disregarded vaccination is an indication of a widespread tendency to neglect this measure. Vigilance is the price of safety. Superintendents of schools should support public health officials in promoting vaccination of all school children.

40. Who should vaccinate and immunize school children?

Under our present organization of medical care for the community, the family physician should be requested to give these treatments. For those citizens who are unable to employ a physician, immunization should be made available at clinics and dispensaries. The success of this treatment depends upon the quality, source, and freshness of the serums employed. When the general practitioner is not in sympathy with these measures, and perhaps lacks the necessary remedies, the children should be taken to the physicians employed by the board of education and board of health. Opposition of private physicians to this practice must give way before the obvious value to the community to be derived from mass action and expert service. The more recently trained physicians increasingly favor immunization by school health officers.

41. What is toxin-antitoxin?

Toxin-antitoxin is a mixture of the diphtheria toxin and antitoxin. Immunization is secured by the injection of a small amount (one cubic centimeter) into the skin. Three doses are administered. The action of toxin-antitoxin is progressive, so that with the passage of time immunity increases.

42. What is the Schick Test?

The Schick Test is a measure to determine the susceptibility of an individual to diphtheria. The test shows whether or not the person is apt "to take" the disease if exposed, and the probable severity of the attack, if it occurs.

43. What are clinics?

Clinics are hospital services designed to provide expert medical, surgical, or dental care for those who are unable to pay in whole, or even in part, for treatment. Clinics supported by the community are essential in any effective health service program for children in cities with a population of 8,000 and above. In small towns and villages such services should be available through coöperative arrangements. In rural communities traveling clinics have proved successful.

Some of the outstanding school clinics are located as follows:

Dental Clinics: St. Augustine, Fla.; Cincinnati, Ohio; Rochester, N. Y.; Bridgeport, Conn.

Medical and surgical clinics: Cleveland, Ohio; Detroit, Mich.; Pittsburgh, Pa.

44. For what conditions may clinics be used effectively?

Clinics are especially useful for certain physical defects. Dental clinics are established in many school systems to care for children's teeth. Orthopedic clinics care for feet and spinal defects. Surgical clinics are essential in tonsil and adenoid cases. In larger cities, cardiac clinics, neurological clinics, and nutrition clinics are indispensable in caring for the numerous disorders of the heart, nervous system, and nutrition of children.

45. What is meant by a follow-up program?

Where periodic or other health examinations show indications of remediable defects among school children, such defects are to be reported to parents or guardians. Moreover, parents or guardians should be urged to consult their family physician or a specialist regarding further examination or correction of the defects noted. Frequently school health authorities arrange for transportation and financial assistance in the correction of such defects in clinics.

During epidemics of communicable diseases suspect cases are reported to the local board of health.

As a result of school health inspections, evidences of such unhealthy conditions as malnutrition and pedicu-

losis are sometimes noted. These are reported to the home with instructions for their correction.

The above measures constitute what is known as a follow-up program. As a matter of fact, it is doubtful if periodic health examinations can be justified without the necessary follow-up procedures. The school nurse is the chief agent in this important work, although classroom or home-room teachers may be expected to assume a part of the responsibility.

46. Under what conditions should mid-session lunches be served?

In some communities it is the custom to serve mid-session lunches of milk and crackers, or a combination of chocolate and milk, to children who need and desire this service. It is doubtful if this practice can be justified for those who are of normal weight. If such children receive satisfactory breakfasts and lunches, the habit of eating between meals may interfere seriously with the appetite.

Upon the advice of the examining physician, mid-session lunches are recommended for children who are 10 per cent underweight. A nominal charge may be made for such lunches. Indigent cases are cared for at school expense, or by a non-official agency. Instruction in regard to table manners[1] and nutrition forms an important feature of all school feedings.

[1] Williams, J. F. and Dansdill, T. *Health and Service,* pp. 189-191. Book Four of Wholesome Living Series. Benj. H. Sanborn & Co., Chicago, 1929.

47. How may the school cafeteria affect the health and physical education program?

The school cafeteria provides one of the best opportunities to teach certain facts, and to develop desirable habits and attitudes about nutrition. Care must be exercised that the food is nutritious, attractive, and well served. One method of measuring the effectiveness of health instruction is to check the types of food selected by students during the lunch hour. The school cafeteria may serve further as an excellent laboratory for teaching proper table manners.

Three common faults to be found with school feeding are as follows:

1. The serving of unhealthful foods.
2. Failure to allow sufficient time for children to eat their food properly.
3. Operation of the cafeteria for financial profit.

48. What is the minimum equipment of a first-aid cabinet?

It is imperative that every school building be equipped with one or more first-aid cabinets which are well supplied with materials for rendering efficient service. A first-aid booklet, such as the one prepared by the National Safety Council, Chicago, Ill., should be kept in the cabinet. A suggested minimum equipment follows:

Castile soap or a four ounce bottle of tincture of green soap.

Boric acid crystals (whenever needed mix ¼ teaspoon of crystals with a glass of water).
1 ounce jar of vaseline.
Vaporoles of aromatic spirits of ammonia.
Iodine (1 part tincture of iodine to 5 parts water).[1]
1 pint high test gasoline (for cleaning grease smeared skin injuries).
Sterile gauze pads (1 doz. 1″ x 1″; 1 doz. 1″ x 2″; 1 doz. 2″ x 3″; ½ doz. 4″ x 6″. Keep all pads in sterile wrapping).
1 pound package powdered sodium bicarbonate.
Absorbent cotton.
1 inch bandages (at least 6).
2 inch bandages (at least 6).
Spool of 2 inch adhesive tape.
1,000 wooden applicators for making swabs.
Safety pins.
Scissors.

49. Should a teacher be able to render first aid?

Every teacher should know the fundamentals of first aid and the technique necessary for the application of these fundamentals in caring for injuries which occur frequently at school. In several states such instruction forms a part of the candidate's professional training. For teachers in service, first-aid technique should be given by school physicians and nurses at teachers' meetings and institutes. Some of the more important rules to remember are the following:

1. Send for a physician if the case is at all serious.

[1] Bottles containing iodine and mercurochrome should have rubber stoppers, properly attached to glass rod applicators.

2. Keep cool.

3. Gently remove patients to a quiet place with normal room temperature. In case of broken bones, do not move the patient unless absolutely necessary.

4. Place the patient in a comfortable position (preferably on his back) and loosen clothing.

5. Keep fresh air in circulation.

6. Keep the crowd away.

7. If clothing covers the wound, carefully cut the clothing along the seam.

8. Place a sterile gauze dressing on all wounds as quickly as possible.

50. Do school laws require fire drills and instruction?

The school laws in most states require fire drills to be given at periodic intervals. In some states further provision is made for instruction in fire prevention. According to Section 12900 of the Ohio General Code, the person responsible for the conduct of a school having an enrollment of 50 or more pupils shall organize fire drills for the rapid dismissal of pupils in cases of emergency. Moreover, these fire drills shall be given at least once each month. Section 12901 of the Ohio General Code requires 15 minutes of instruction in fire prevention each week.

It is important that school administrators comply with the spirit of the law relating to this vital factor of safety education. A definite manner of leaving the building should be established for each room. Varia-

tions in execution of this rule should be allowed only under extraordinary circumstances.

HEALTH INSTRUCTION

51. What are the aims of health instruction in classes?

Satisfactory health instruction aims to assist in the development of desirable habits, wholesome attitudes, and adequate knowledge relating to personal, community, and racial health.[1] It is not sufficient to consider the physical aspects of the child's health; mental hygiene and social hygiene are equally important.

A committee composed of prominent members of the American Medical Association and the National Education Association has outlined the general objectives of health education as follows: [2]

"1. To instruct children and youth so that they may conserve and improve their own health.

"2. To establish in them the habits and principles of living which throughout their school life, and in later years, will assure that abundant vigor and vitality which provide the basis for the greatest possible happiness and service in personal, family and community life.

"3. To influence parents and other adults, through the health education program for children, to better habits and attitudes, so that the school may become

[1] Adapted from the definition given by Dr. T. D. Wood.

[2] *Health Education.* Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, p. 9, 1924.

an effective agency for the promotion of the social aspects of health education in the family and community as well as in the school itself.

"4. To improve the individual and community life of the future; to insure a better second generation, and a still better third generation; a healthier and fitter nation and race."

52. What are some of the chief points for the teacher to keep in mind in teaching health?

While health education deals with habits, attitudes, and knowledge pertaining to individual, community, and racial health, it is essential that we think of health in its relation to some definite social accomplishments. In other words, health is not an end in itself, except for persons who are ill. Neither is health an end in education.[1] It is a means by which the larger aims of education may be realized more fully. In fact, we may consider health as that quality which enables us *to live most and to serve best.*[2] When considered from this point of view, the preservation or promotion of health strengthens the ability of the individual to perform the duties of citizenship.

The inculcation of desirable habits is the essential feature of health education. We cannot begin too early to develop these habits. In fact, a major part

[1] The listing of health as the first of seven objectives for education is sometimes misunderstood. Clearly, of course, it is an administrative objective, and as such deserves prominence. Its relationship to all phases of life is not invariably made clear.

[2] Williams, J. F. *Personal Hygiene Applied.* Third Edition, p. 18. W. B. Saunders Company, Philadelphia, 1928.

of all instruction in the primary grades deals with habit formation; here the element of repetition is essential. In the intermediate grades health habits are also stressed, and increased attention is given to knowledge about health as a guiding influence for the practice of habits already formed and the acceptance of new ones. During early adolescence the desirability of forming new habits is apparent, together with a continuation of the older ones. At the same time, greater emphasis is given to health knowledge and the development of worth-while attitudes. Especially is this true with regard to community hygiene. It is at this time that the child begins to appreciate the many complications of community living and to recognize the responsibilities that accrue to all citizens.

The teacher should keep in mind that a mere knowledge of health practices is insufficient. Modern education has adopted the principle that a thing is actually learned only in so far as it modifies human conduct. No better application can be made of this principle than in health education. A knowledge of vitamins or of Pasteurization is of value when the child uses such information for the improvement of personal or community health.[1]

It should be pointed out that the normal child is not interested primarily in his health. If he is ill he wants to get well, but as soon as the pain or discom-

[1] Williams, J. F. *Health and Ideals.* Book Five of Wholesome Living Series. Benj. H. Sanborn & Co., Chicago, 1930.

fort has left him, he ceases to be concerned about illness. In other words, the young child thinks largely in terms of the present and cares little about the future. As he grows older, he draws upon his increasing fund of knowledge gained through past experiences for the solution of problems with which he is confronted. All this argues for the development of a program in health education dealing with activities or life situations. The child becomes interested and learns about health in the successful operation of these activities. For example, the morning health inspection is an activity which encourages habits of personal cleanliness. In the junior high school the Health Club may be an agency through which desirable attitudes pertaining to individual and community health are established. The child is interested in good posture if it permits him to march at the head of the class. In summary, it may be said that the best type of instruction results when health is considered as a by-product of an activity that has incentives other than health.

53. Is class instruction sufficient for the teaching of health?

It is safe to say that any program of health teaching is unsatisfactory which is based upon class instruction alone. It is important to recognize that all school situations which bear upon the mental, physical, and moral health of children should be utilized.[1]

[1] See also the discussion of the next problem: "What are the various channels through which health is taught in schools?"

54. What are the various channels through which health is taught in schools?

Health instruction should not be regarded as a separate and distinct subject, but as a program which utilizes numerous school activities. The annual health examination is an important activity for hygiene instruction. Similarly, situations arising out of or in connection with the follow-up program, the morning health inspection, school feeding, hygiene and sanitation of the school plant and equipment, clinics, special classes, vaccination, immunization, first aid, and safety should be utilized. Physical education, although not designed primarily to teach health,[1] provides situations which may be used effectively. One of the best ways to teach health is to correlate it with other subjects, especially reading, citizenship, social studies, and oral and written language.

Numerous situations relating to community health may be reported in the neighborhood, as well as in newspapers and magazines. These should be utilized for the furtherance of health instruction.

55. What special methods and activities are aids in teaching health?

The best practice is to use activities growing out of the familiar experiences of children. An excellent example of this method is the course of study prepared by the Cleveland Board of Education, which is based

[1] Williams, J. F. *Principles of Physical Education,* pp. vii-xix. W. B. Saunders Company, Philadelphia, 1927.

largely upon various activities of the health service program.

The following activities [1] are used frequently for motivating health teaching:

1. The periodic health examination.
2. The weight and measuring program.
3. Health stories—especially in the lower grades.
4. The health diary—a valuable means of checking the practices of habits formed. This activity is of greater value in the intermediate grades.
5. Health calendars—used in the lower grades in connection with the morning health inspection.
6. Health clubs—in grades above the fifth they allow for group discussion of questions relating to personal, school, and community hygiene. Such organizations may be especially valuable for the development of proper health attitudes and ideals. It is essential that these clubs be carefully supervised to avoid inaccuracies of facts and improper conclusions.
7. Health rhymes and songs—valuable, provided they contain original material, instead of slap-stick parodies of Mother Goose or popular melodies.
8. Posters—an excellent means of motivating health instruction in practically all grades. Such work should be correlated with art, and the assistance of art supervisors encouraged.

[1] It must be remembered that special aids in the teaching of health have certain limitations. Sometimes the class, and even the teacher, becomes so enthusiastically interested in the method or activity itself that the educational value of the aid is practically lost.

9. Scrapbooks—effective, especially with the intermediate grades. Pictures, newspaper and magazine articles, and local happenings relating to the topics studied form the basis of material. A brief paragraph by the student may accompany each topic.

10. Monthly reports to parents showing the condition of the child's health, especially his height and weight record—used frequently in conjunction with the monthly scholastic record card.

11. Health pageants and exhibits—stimulating the interest of parents and of the general public. Care must be exercised that extensive preparation for such pageants and exhibits does not detract from the educational features of the daily health program. Instead, the demonstration should include health activities that have proved effective.

12. Commercial advertising material—available from a number of sources. Care must be exercised that it be attractive and true to fact. Circulars and pamphlets containing a minimum amount of good health material and a maximum amount of advertising should be avoided. Schools cannot afford to be used for advertising purposes.

13. Health films—a valuable means of vitalizing health education.

14. A wall chart—every classroom in the elementary grades should contain a wall chart, showing graphically the progress of the group in growth (height and weight) and in the formation of good health habits.

15. *Hygeia*[1] contains a number of activities which have been used successfully by classroom teachers in various parts of the country.

16. It is recommended that classroom teachers experiment with new methods and activities for teaching health, and that some means be provided for collecting and distributing those aids which other teachers in the district have found to be effective.

56. What are some important considerations in preparing a health syllabus?

Much of the teaching of hygiene in the grades consists of repetition from grade to grade of things that children have learned earlier. The procedure in this respect is different from that operative in other subjects of the curriculum.

There are many habits that can be developed in the first two or three grades, and efforts should be made to establish them. In the upper grades it should be taken for granted that such habits have been established in precisely the same way that we take for granted that children know how to add 2 and 2, 3 and 3. Fourth and fifth grade instruction does not resolve itself into teaching children to add 2 and 2, but proceeds from that point to teach them other skills. This means, in the first place, a clear statement of health habits to be worked for in certain of the lower grades,

[1] *Hygeia* is a health magazine published by the American Medical Association, 535 No. Dearborn St., Chicago, Ill. This publication should be in every school library.

and then instruction to teachers regarding the methods by which they can make children responsible for these habits, precisely as they make them responsible for other accomplishments.

The talk about the development of health habits in high school and college is the product of the sorriest kind of wishful thinking; because if habits are not formed in the early grades, the time is past within which any substantial accomplishment in habituation can be expected.

Beyond the range of habits there are a number of skills important to the proper functioning of the human body. The syllabus should very definitely distinguish between habits and skills. The talk about the habit of posture or the projection of posture on a habit basis is also the result of wishful thinking. Posture is a skill and its health implications are intimately tied up with the understanding that it is a skill. Although one may be habituated to a certain diet or certain articles of food, the *choice* of food is primarily a skill, not a habit.

Skills should be emphasized in the upper grades of the elementary school, especially in the fifth and sixth grades. Habit formation and the development of skills are dependent to a certain extent upon knowledge, but only enough knowledge to make the habit operate and the skill successful.

The study of physiology, as such, should be reserved for the junior high school.

57. Should there be no direct teaching of health?

Direct teaching has an important part in the conduct of worth-while health education. While the child's attention is focused upon the activity, the teacher should be conscious of the habits, attitudes, and knowledge to be gained. The child wishes to pass the morning health inspection in order that his row shall stand high in comparison with other rows, or because he desires to win approval for himself. The teacher, on the other hand, uses this morning health inspection as an activity for inculcating habits of personal cleanliness in her pupils. As a part of her instructional work, she shows the children how to wash their hands, explains to them how to keep the hands from chapping, develops reasons for brushing the hair, or suggests the importance of wearing clothes suited to the season of the year.

The amount of direct teaching is increased as the child grows older. In the third and fourth grades health readers as supplementary material may be used. In the fifth and sixth grades definite health books are desirable. In the junior and senior high school the acceptance or rejection of a health principle should be dependent upon the facts involved. These require texts of a scientific nature primarily, rather than promotive. For example, facts pertaining to vitamins, calories, digestive juices, and assimilation are vital to an appreciative understanding of nutrition. While children in the primary grades may be influenced by the

teacher's personality, most junior and senior high school students "have to be shown."

Some years ago the contents of hygiene textbooks involved largely anatomical structure and physiological functions of the body. At present there is a tendency in some communities to emphasize habits and attitudes and exclude health knowledge almost entirely. Considerable attention must be given to health knowledge,[1] if the child is to understand wise health practices. Modern texts give attention to attitude formation in their presentation of scientific knowledge.[2]

58. Should a special time be provided for health instruction?

Special periods for health instruction should be provided as long as this practice is followed in other subjects. This procedure insures a more systematic means of accomplishing certain satisfactory results than can be secured by leaving the subject to incidental teaching. It is recognized, of course, that every part of the school curriculum that is intrinsically related to health education should be utilized. In other words, all teachers should be conscious of their responsibility

[1] Knowledge is herein limited to the essential facts dealing with personal and community health.

[2] Williams, J. F. and Dansdill, T. Wholesome Living Series. Benj. H. Sanborn & Co., Chicago, 1929. Book One: *Health and Happiness* (In preparation); Book Two: *The Rules of the Game* (In preparation); Book Three: *Health and Control,* 1929; Book Four: *Health and Service,* 1929; Book Five: *Health and Ideals,* 1930, by the senior author.

in improving and protecting the health of pupils. Opportunities to correlate health with other school subjects occur frequently and should not be neglected.[1]

59. What are some of the common defects in health instruction?

Several defects are to be found in health instruction, although many of them have been remedied, in part at least, by an awakened consciousness among school authorities regarding the importance of health. An enthusiastic interest, although significant, is not sufficient; wise leadership can be given only by those who are technically trained in the field. A summary of the most common defects follows:

1. Teaching facts about physiology and anatomy instead of using such knowledge to guide the child in developing desirable habits and attitudes.

2. Emphasizing a single phase of health, such as nutrition or weighing and measuring, without due regard for other factors of a well-rounded program.

3. Teaching health as a separate subject, unrelated to other school activities.

4. Failing to enlist the coöperation of parents and townspeople.

5. Relying entirely upon textbook instruction, and conversely, failing to provide textbooks at all.

6. Using subject matter unsuited to the age of pupils.

[1] See also page 67.

7. Causing the child to become introspective because of emphasis placed on illness instead of normal robust health.

8. Considering health as an end in education instead of a means by which persons may become of greater service to the community.

9. Using parodies of popular songs or adaptations of rhymes from Mother Goose.

60. How may the coöperation of parents be secured in promoting school health work?

A fundamental principle underlying habit formation is frequent repetition. Since children are in school for only a small portion of the day or year, it is imperative that parents understand and be in sympathy with the school health education program, if any marked success is to be achieved in the inculcation of desirable health habits. It is true that the school should not attempt to usurp the position of the home, but our educational system will fail in a part of its responsibility if it does not become an important factor in making the home. Parents are largely responsible for the following:

1. Amount of sleep which children receive.

2. Personal cleanliness, such as the frequency of baths, and opportunities for same.

3. Proper selection and care of clothing.

4. Selection of and provision for an adequate diet which is both nutritious and appetizing.

5. Development of health habits by encouraging or discouraging the child in their performance.

6. Success in controlling communicable diseases by granting permission for immunization, the use of disinfectants, and coöperation with health authorities when communicable diseases exist.

Among the numerous methods which have proved satisfactory in securing the coöperation of parents for the support of school health programs the following are suggested:

1. Visitation of parents by teachers and nurses.

2. Requests that parents come to the school for either individual or group consultation on the subject of the school health program.

3. Utilization of the local Parent-Teacher Association as a means of disseminating knowledge with reference to the school health program and establishing wholesome public opinion.

4. Assignment of home projects in which the child is encouraged to plan the meals for a day or a week, or to figure the cost of the various foods consumed by the family for a given period.

5. Monthly reports sent to parents, showing the condition of the child's health with regard to the correction of remediable defects and the results of the weighing and measuring program. These reports should require the signature of the parent or guardian. They may be enclosed in an envelope with the academic record of the pupil.

61. What principles should be followed in organizing the subject matter of health instruction for the different grades?

It is impossible to transfer a course of study used in one community to another community without making certain adaptations. The health instruction program must take into account existing conditions and specific needs of the community. Health factors growing out of school situations and those within the community should be incorporated in the course of study. Of course there is certain basic information associated with each of the various health topics which must be included in the course of study for every school.

The outline prepared by Wood and Lerrigo will serve as a general guide in the organization of subject matter for the different grades.[1]

1. The Healthy Organism—nutrition, big brain-muscle activities, sleep and rest, education for parenthood, use of fresh air and sunshine, elimination of waste, care of the skin, care of the hair and scalp, use of clothing, care of the feet, care of the hands, care of the teeth and mouth, care of the nose and throat, care of the voice, care of the ears, care of the eyes.
2. The Healthy Personality—mental and emotional health, social health.
3. The Healthy Home and Community—the healthy home, control of infection, use of professional health service, temperance, safety, first aid.

[1] Wood, T. D. and Lerrigo, M. O. *Health Behavior.* Public School Publishing Company, Bloomington, Ill., 1928.

62. How may a teacher be sure that she has covered the material in health education for the various grades?

It is very difficult to evaluate accurately the degree to which habits and attitudes have been formed. Objective tests have been prepared which measure health knowledge.[1] As a guide to teachers, scales have been prepared covering the more important items of health habits, knowledge, and attitudes.[2] Using these aids with a modern and scientific health text, the teacher should be able to cover the needed material. That skills, habits, and knowledge are to be achieved as definitely in health practices as in other school subjects is not always appreciated. Children will advance rapidly in health practices when teachers more fully understand this fact and expect achievements in health as they do in other fields.

63. Should the elementary supervisor be prepared to supervise health instruction in elementary schools?

It is essential that some type of supervision be provided, since few professional training schools prepare classroom teachers adequately for health instruction.

[1] Gates, A. I. and Strang, R. *Health Knowledge Tests.* Bureau of Publications, Teachers College, Columbia University, New York City. Also, American Child Health Association, 370 Seventh Avenue, New York City.

[2] Wood and Lerrigo, *op. cit.* Frequent reference to these scales will assist the teacher in placing the proper emphasis where it belongs.

Several of the larger cities employ persons who have special preparation for supervising this important work. The factor of increased cost has prevented the establishment of such supervision in most of the smaller districts. Here this task is assigned to the regular corps of elementary supervisors or to supervisors of physical education. Effective service cannot be expected of either of these groups without special preparation in health education. In any event, elementary supervisors should be qualified by training and experience to assist the classroom teachers with the health program, since the success of this work is largely dependent upon its articulation with other school activities.

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PART II

PHYSICAL EDUCATION

PART II

PHYSICAL EDUCATION

THE FOLLOWING questions and answers aim to give help to the school administrator in gaining a clearer appreciation of the contribution made by physical education to the complete education of elementary school children. The more significant items relating to principles, programs, and standards are presented in brief form. A reasonable development of the elementary program ought to lay a foundation in physical education that will aid in solving the difficult administrative problems of the high school.

INTRODUCTION

1. What is physical education?

Physical education has been regarded as exercise, disciplinary drill, and muscle culture, and as serving various other purposes. For schools, *physical education is the sum of one's physical activities, selected according to kind and conducted according to outcomes.* Selection according to kind implies, therefore, that activities vary in worth and that those of educational merit will be chosen; conduction according to outcomes suggests that the activities will be carried on to

secure the values inherent within the activities themselves. These outcomes are mental, moral, and social quite as well as physical.[1]

2. What is the aim of physical education?

"Physical education should aim to provide skilled leadership and adequate facilities that will afford an opportunity for the individual or group to act in situations that are physically wholesome, mentally stimulating and satisfying, and socially sound." [2]

This aim recognizes the paramount importance of providing adequate opportunities for boys and girls in physical education activities. Students themselves possess the interests, drives, and urges to action. The opportunity must include, therefore, desirable and competent leadership and adequate facilities. The activities and facilities provided through leadership are to be chosen and are to be conducted with reference to the guides "physically wholesome, mentally stimulating and satisfying, and socially sound."

3. What are the major objectives of physical education?

There are four major objectives of physical education.

[1] Kilpatrick, W. H. "What Range of Objectives for Physical Education?" *Teachers College Record,* Sept. 1925, p. 6. Williams, J. F. *Principles of Physical Education,* pp. 161-264. W. B. Saunders Company, Philadelphia, 1927.

[2] Williams, J. F. *Principles of Physical Education,* p. 284. W. B. Saunders Company, Philadelphia, 1927.

The first objective is the *development of the organic system of the individual through the physical activities.* Aside from the influences of heredity and the nutritive environment, organic power comes from physical activity.

The second objective is the *development of the neuromuscular system* in general, and particularly in its *relation to control over certain fundamental skills.* Skills that do not function in life are useless, but the many life skills of recreative or utilitarian character are essential in a proper education.

The third objective is the *development of certain attitudes toward physical activity generally and toward play particularly.* The influence of sedentary living and the force of economic standards require that the schools plan for positively constructive, education-sustaining, sound attitudes of life.

The fourth objective is the *development of standards of conduct.* Standards of conduct are related to all that people do. They are peculiarly intertwined with sports activities, and this aspect is full of possibilities for education.[1]

4. Is physical education an old or a new subject?

Sixteen centuries ago physical education played an important part in the training of the Greek citizen. During the Middle Ages it disappeared with other

[1] Williams, J. F. *Principles of Physical Education,* pp. xiii-xvi. W. B. Saunders Company, Philadelphia, 1927.

established forms of education. It was hindered in its rebirth at the time of the Renaissance by the idea that the physical was evil and the spirit alone was the true reality in life.

In recent years physical education has become prominent because educators and publicists have recognized it as an important factor in education; because of the general extension of recreational facilities and public participation therein; and because of the fundamental support given to physical education by the sciences, especially psychology, physiology, sociology, anthropology, and demography.

5. What have been the purposes of physical education in the past?

The purposes of physical education have varied with the time and the place. Ideas control what people do in shipbuilding, in war, in education.[1] In Rome, devoted to foreign conquest, physical education was learned upon the Field of Mars. In the nineteenth century the nationalistic systems of Germany and Sweden made physical education serve the dominant political principles of these nations, the perpetuation of king and noble. In the United States, since the Civil War, the purpose of public school physical education has usually been to provide exercise so that the minds of children could be trained without too much injury to their

[1] Williams, J. F. "Physical Education in the Schools." *The School Review,* April, 1926, pp. 285-294.

health. During the past fifteen or twenty years our educative principles have altered greatly. The new philosophy conceives of physical education as an important factor in the worth-while development of the individual and in the satisfaction of legitimate social needs.

6. Why do not these earlier conceptions of the purposes of physical education prevail to-day?

The purposes of nationalistic systems were never valid in an America dedicated to democratic ideals. The exercise purpose of physical education still fostered in some schools is likewise invalid for several reasons. First, the unity of mind and body precludes the idea of one education for the mind and another for the muscles. Second, the importance of play and recreation in the many-sided aspects of personality requires a purpose wholly different from that conceived of as the purpose of mere muscular exercise. Third, the importance of social behavior demands the utilization of certain strategic agencies for education in behavior. Fourth, the need of leisure-time education requires the selection of activities whose purposes shall contribute to leisure-time occupations. It should be noted in all these considerations that exercise is provided but is secured as a result of activities selected and engaged in for other purposes.

These conceptions of purpose naturally and logically require a different program of activities than was de-

manded when exercise alone was conceived of as the goal of physical education.

PHYSICAL EDUCATION ACTIVITIES

7. What criteria can be used to judge the value of physical education activities?

There are four criteria for judging the importance of physical education activities.[1] These criteria are based upon the nature of man, his biological needs in relation to national ideals, inherent traits, and social purposes.

1. The activities must provide physiological results, scientifically determined and indicative of wholesome, functional activity of organic systems, and must be expressive of the needs of the growing organism.

2. The activities must have meaning and significance for the individual and should provide a carry-over interest.

3. The activities must provide opportunity for the individual to exercise the desirable instinct mechanisms by which socially useful traits may be developed.

4. The activities must offer opportunity for the individual, under wise leadership, to meet educative situations as one of a social group.

The above criteria are in harmony with modern theory and practice in the general field of education.

[1] Williams, J. F. *Principles of Physical Education,* pp. 422-432. W. B. Saunders Company, Philadelphia, 1927.

8. How much time should be devoted to physical education?

The question of time allotment is a serious one in the elementary schools. Among the thirty-six states which provide special legislation dealing with physical education, several indicate a minimum number of minutes which shall be devoted to this program. Altogether too many school officials attempt to meet the legal requirement by counting recess periods, time used in passing from one class to another, and relief drills. It is to be remembered that state laws present a minimum, not a satisfactory standard.

Hetherington states that pupils from five to twelve years of age need from four to five hours daily of big-muscle activity.[1] Burdick recommends from four to six hours daily.[2] Clearly there is insufficient time in the school program to provide for all the physical activity needed by school children.[3] It is apparent that the physical education classes must be used primarily as instruction periods wherein pupils learn suitable activities and develop neuromuscular skills which can be used out of school. Considering the value of muscular activity for children of this age, twenty to thirty minutes daily should be devoted to organized instruction.

[1] Hetherington, C. W. In *American Physical Education Review,* May, 1927, p. 251.

[2] Burdick, W. H. Quoted by Williams, J. F., *op. cit.,* p. 86.

[3] Seham, M. "Why the Child Needs to Play." *Hygeia,* September, 1926, pp. 489-492.

9. Upon what basis should students be classified for activities?

In the first three grades when children play together in groups no plan of classification is necessary. In the fourth, fifth, and sixth grades it is customary to classify pupils for activities which involve competition. A common procedure is to group pupils on the basis of age, weight, height, or grade, or a combination of these factors. The most satisfactory method of classifying elementary grade pupils appears to be the exponent plan, which takes into account age, height, and weight.[1]

10. What are the biological and nervous differences between boys and girls which necessitate their being classified separately?

It is generally agreed that boys and girls should be separated for physical education at the beginning of the fifth year in school. The reason for this administrative measure resides in the biological difference between boys and girls. Before the onset of prepubertal changes, boys and girls are very much alike; afterwards there are marked changes: (1) The pelvis of the female is broader, giving to the thigh bones a marked obliquity. This so handicaps the girl in running that she is unable to compete with the boy on even terms. (2) The shoulder girdle of the boy is wider and stronger, giving him superiority in throw-

[1] Nash, Jay B. *The Organization and Administration of Playgrounds and Recreation,* p. 258. A. S. Barnes & Company, New York, 1927.

ing and climbing activities. (3) The lower center of gravity in girls suggests that hanging and swinging activities (from arm support) should be used rarely, if at all. (4) The male shows more pugnacity than does the female, a fact which doubtless explains the notion that males and females differ nervously. Aside from changes in the girl at the menstrual period, girls and boys show nervous systems that are very much alike.

11. Into what general groups may physical education activities be classified?

Physical education activities may be classified into six groups. These are (1) play, (2) dancing and dramatic activities, (3) self-testing activities, (4) fundamental skills, (5) out-of-door camping activities, and (6) individual gymnastics.

Play includes games, sports, athletics, aquatics, and similar forms of activity. Dancing and dramatic activities include folk, natural, clog, social and other dancing, festivals, pageants, and pantomimes. Self-testing activities include boxing, wrestling, stunts, apparatus exercises, and various combat and self-defense activities. Fundamental skills include running, jumping, throwing, climbing, hanging, lifting, and carrying. Out-of-door activities include hiking, trailing, hunting, fishing, camping, and wandering. Individual gymnastics include special exercise for individuals, designed to correct physical defects of certain kinds.

12. Of what value are games?

These activities involve such fundamental movements as running, jumping, hopping, skipping, dodging, throwing, catching, flinging, and climbing. Free play for the lower grades and the element of competition in games for the upper grades hold the keen interest of children because such activities contain elements which appeal to the native capacities of youth. Under wise guidance and leadership, play and games may act as one of the best citizenship laboratories where children develop desirable characteristics of social behavior. Again, games are of value in developing certain habits or skills which may be of use to the individual in planning and executing a satisfactory leisure-time program.

In this leisure-time aspect, it is necessary, of course, to recognize that certain games are more useful than others. Thus football and track for high school boys are not as valuable in this respect as tennis, swimming, handball, squash, or rackets. While games are not to be judged solely by their leisure-time qualities, all programs should be examined so that such qualities are not excluded.

13. What are the chief points in a good game lesson?

1. All the children are active. Those games which require that the majority stand still while one child runs are less desirable than those which allow concerted action.

2. The games offer leadership by the pupils.

3. Situations of social and moral implications are used by the teacher to establish desirable attitudes.

4. Games are selected that function in play activities after school or are related to other more advanced games.

5. The games are appropriate to the age and sex of the participants.

6. Children are watched for signs of fatigue or overexertion.

14. Should the teacher insist upon all children entering a group game, even though a few of them have no interest in the activity?

It cannot be denied that child interest is an important factor in selecting activities in physical education. Interest, however, is dependent largely upon experiences in previous life situations. The efficient teacher will ascertain the cause of apparent lack of interest. If it is found that similar groups of children have enjoyed the activity and that it contains elements of social worth, then the teacher may justly urge her class to enter the game even though not all members of the group are vitally interested in it from the beginning.

15. Should elementary children engage in interschool competitive games?

Briefly, the answer is, "No." Elementary school children should have a program of physical education

consisting of games, dramatic activities, and self-testing activities. The best type of program provides for instruction in the techniques of these activities during class periods, with opportunity for practicing them after school in the gymnasium or on the playground. Where interschool competition is encouraged, emphasis is placed upon the students who make the team, thereby penalizing those who are in greater need of assistance. Thus a fundamental principle of public education is violated—providing the greatest good for the largest number of children. Again, most teachers in physical education agree that such competition is unsuited to the needs of the age group represented.

16. Should the recess be organized?

The recess should be organized to the extent of offering all the children an opportunity to share in activities which are wholesome in character. An undesirable condition prevails when some children stand around, others engage in crap games, and still others start fights and promote unwholesome interests and activities.

The supervision should be loose enough to permit the expression of greater freedom and initiative than the class periods permit.

17. What are the chief factors of a well-organized and well-administered recess?

1. All the children are engaged in wholesome activities.

2. Some groups may be engaged in quiet games or play.

3. The bashful and timid children are encouraged to enter groups for activities.

4. Children are permitted to choose their activities.

18. Is it necessary to teach children to play?

Children are constituted with neuron patterns and incentives that prepare them to engage in play. Left to their own devices, the play often breaks down under the difficulties of social adjustment. If the environment is restricted in opportunities, if leadership is absent or deficient, the forms and content of play are likely to be impoverished.

For all these reasons children should be taught to play. In teaching, the leadership, facilities, and content are the contributions of adult understanding. The play incentive is ever within the child, but with proper understanding by the adult the incentive can be strengthened and directed so that play is fixed in the child's attitude as a desirable quality in fine living.

19. What is free play?

Free play constitutes the activities that children select and engage in when left to themselves. Thus, if an opportunity to choose is given, they will proceed without instruction. For younger children such play is very desirable. It should be properly supervised so that opportunity will be free, conduct desirable, and safety assured.

20. Of what value are story plays?

Story plays are dramatic activities concerned with imitating persons or things in situations which are familiar to the children. Many of the best story plays center around activities of the home or neighborhood. It is an unwise practice to substitute a foreign situation for a natural one in providing story play material. For example, playing "Fire Engine" has little meaning to those children who have never seen these huge monsters tearing down the street. Similarly, "Gathering Nuts" may be outside the experiences of some urban children.

The values of story plays are essentially dramatic. By providing opportunity for dramatic expression, they foster personal expression and deter the development of self-consciousness. The free personality, without queer restraints, is largely the product of training; all dramatic activities wisely conducted are for this reason desirable.

21. Should swimming be taught to school children?

Swimming is one of the very best forms of physical activity. An increasing number of elementary schools have provided swimming pools where children may develop natatorial skills which will enable them to rise above the novice class. Besides furnishing a wholesome and natural form of exercise, swimming is a valuable activity because it can be indulged in by persons of all ages. If education is to prepare children

for life situations, then, in view of the fact that an increasing number of families visit watering places during the summer, swimming should be taught children both as a pleasurable recreation and as a measure of safety.

22. Of what value are rhythmic activities?

The rhythms commonly used in lower grades enable pupils to interpret various types of music by such movements as running, skipping, and marching, or to imitate animal movements—such as the high-stepping of spirited horses, or the slow, cumbrous walk of the bear. The dramatic element involved makes a strong appeal to child interests.

Singing games are real games set to music, where children sing as they play. This is a joyous expression of happiness in childhood.

Folk dances, in their primitive simplicity, are rhythmic activities suitable for children. They represent the racial rhythmic activities that have been practiced in various countries for generations. As such, they depict certain social characteristics of the country in which the dance originated. The accompaniment of music adds a delightful charm of rhythm. During the fourteenth and fifteenth centuries various guilds gave dances on festive occasions. At such times it was not unusual for the cloth-makers to present a flag dance, the knife-makers a sword dance, and the coopers a hoop dance.

Experience in rhythmic activities aids in all rhythmic movements, such as walking, running, and dancing. These values are very real in the welfare, happiness, and efficiency of the individual in later life.

23. What are the chief points in a good dancing period?

1. The material is suited to the age and interests of children.
2. The dancing is marked by joy and satisfaction in the performance of the activity.
3. Technique is not stressed as an end in itself.
4. There is some connection between the dancing in the class period and other interests of the children, which results in integrated, purposeful activity.
5. The music which accompanies the dance is good music and desirable as a factor in a child's education.
6. The dramatic qualities in the dance are brought out.
7. The historical backgrounds of the activity (especially in folk dancing) are indicated.

24. Of what use is marching?

A limited amount of marching technique is of value for the orderly movement of pupils from one place to another. Without the rigidity of the soldier type of drill, marching may be utilized sparingly to accomplish desirable motor training. Marching tactics have little disciplinary value except to develop the ability to respond *en masse* to command. Such values should be

claimed only where specific responses have a meaning in the school and social life of the community, such as in fire drills, parades, or school exhibitions.

25. Of what value are natural gymnastics?

Natural gymnastics are concerned with the fundamental skills of rhythmic activities, self-testing activities, games, and athletics. Let us take basketball as an example. Here the skills include the chest pass, dribble, pivot, basket shooting, foul shooting, etc. Each of these skills may be organized as a natural gymnastic exercise for class use. Such exercises are employed to develop coördination and technique in performing the fundamental skill at hand. Care should be exercised, however, to assure a close relationship between the gymnastic drill and the real activity. Natural gymnastics are superior to formal gymnastics in that the former possess a direct carry-over value to the game, stunt, or athletic activity, and are not to be considered as ends in themselves.

26. Of what value are formal gymnastics?

While this is one of the most common types of physical education found in the schools, it is doubtful if formal gymnastics have as great an educational value as rhythmic activities, sports, and games, when judged by the criteria of health, appeal to native interest, carry-over into other activities, or socializing influence. Formal gymnastics should not be abandoned,

however, unless the teacher has developed a suitable program of informal activities. Lack of space and equipment is sometimes used in defense of the formal program. This argument is invalid, since a well-organized natural program may be given in a space not larger than that provided for formal gymnastics. This does not mean, however, that insufficient space is of minor consequence; on the contrary, adequate indoor and outdoor facilities are of paramount importance.

27. Of what value are neuromuscular skills?

Many skills that have been developed in physical education classes are worthless. Most calisthenic movements are without value as skills. General abilities are no longer sought in education, and therefore the error of seeking such general qualities as coördination, accuracy, and obedience is recognized. The neuromuscular skills that serve recreative or utility purposes are very valuable. A person who is skilled in a given activity will choose that activity because he finds satisfaction in it. The relation, then, of recreative skills to leisure time is very great, and neuromuscular education becomes significant in leisure-time education.[1] Skills which facilitate walking, running, jumping, carrying, and other numerous daily acts tend to conserve energy, add to personal happiness, and contribute to human safety.

[1] *Cardinal Principles of Secondary Education.* Bureau of Education, Department of the Interior, Washington, Bulletin, 1918, No. 35.

28. Should the physical education program be responsible for posture training in the schools?

Contrary to an idea which is more or less prevalent, the inculcation of posture habits is no more the single function of the physical education department than is character development. To be sure, posture training is an important objective of physical education, but an upright carriage of the body is dependent upon a number of diversified factors. For example, the adjustment of classroom seats, the personality and example of the teacher, nutrition, the home environment, and the fitting of clothes may be as important as exercise in the development of correct posture. Every teacher should be conscious of his responsibility in guarding the child against those mental and physical factors which may interfere with effective posture education.

29. What rôle has pupil leadership in physical education?

The development of leadership qualities is one of the most essential features of the physical education program. Teachers should be constantly alert in searching for opportunities through which this important trait may be developed. One valuable means of obtaining this result is to use pupil leaders or captains for various activities. Children may be taught to cherish this honor by being allowed to direct the playing of games or the performance of rhythmic activities.

By changing captains at various intervals, each member of the group may have an opportunity to act in the capacity of both leader and follower. Some teachers arouse interest by planning meetings with the leaders, at which time special instruction is given. Pupil leadership may be used to stimulate wholesome competition between groups, beginning with the third or fourth grade.

As part of this training in leadership, pupils should be helped to formulate (1) what to look for in leaders; (2) what the qualities of good followers are; (3) how leadership can be developed, etc.

STANDARDS IN PHYSICAL EDUCATION

30. What standards of behavior can be taught in physical education?

The standards of behavior which an individual, a community, or a nation possesses are all acquired standards. Social conduct is an acquired conduct. The standards of behavior taught in physical education are those which the school manifests and the teachers possess. If one wishes children taught Christian doctrine, one does not select as teacher an atheist, a Brahmin, or a Mohammedan. If one wishes scientific attitudes taught, one does not select as teacher a highly emotional person devoted to antivivisection or to some mystic cult. Accordingly, if one wishes standards of

behavior in physical education taught one must select a teacher who exemplifies the standards that are to be learned by the children. The activities of physical education are especially rich in opportunity for social and moral lessons. The entire school, pupils and staff, can help or hinder the teacher in his efforts.

31. Should children be expected to attain excellence in physical activities as in mental activities?

While many of the standards which have been developed for various types of mental activity are more objective than those evolved for physical accomplishment, there is no reason to assume that children should not be expected to attain excellence in the latter. In fact, physical activity represents a phase of education in the same sense that mental and moral achievement are essential to the well-rounded development of personality. Improved techniques for measuring physical attainments will stimulate the interest and cooperation of school executives and townspeople in furthering the program of physical education.

32. Are there standards of achievement for physical activities?

A number of cities and a few states have developed standards of achievement for various activities in physical education. The work has been promoted also by committees appointed by national organizations, and by individuals. Some of the more important tests follow:

The Athletic Badge Test for Boys and Girls [1]
Motor Ability Tests [2]
National Physical Achievement Standards [3]
Age Aim Charts of Physical Efficiency [4]
Hexathlon Test [5]
Swimming Pentathlon [5]
Detroit Decathlon [6]
Measuring Antero-Posterior Posture [7]
Health Knowledge Tests [8]
Health Education Tests [9]

33. Is there any tendency to overestimate the value of tests and measurements?

Objective measurements are important if we are to determine educational progress scientifically. The lack of such standards in the past has been a distinct hindrance to the progress of physical education. At present there are those who believe that the use of standard tests will solve nearly all the problems of education. At the other extreme one finds a diminishing group who

[1] Playground and Recreation Association of America, New York.
[2] Report of the National Motor Ability Test Committee. American Physical Education Association, Ann Arbor, Mich.
[3] A. S. Barnes & Company, New York.
[4] Board of Education, Philadelphia, Pa.
[5] Physical Directors' Society of Y.M.C.A., 347 Madison Ave., New York.
[6] Board of Education, Detroit, Mich.
[7] Brownell, C. L. Scale for Measuring Antero-Posterior Posture. Bureau of Publications, Teachers College, Columbia University, New York.
[8] Gates, A. I. and Strang, R. Health Knowledge Tests. Bureau of Publications, Teachers College, Columbia University, New York.
[9] American Child Health Association, New York.

can see no use for objective tests but rely upon what they call "good common sense" or intuition. Scientific investigations have shown that both of the above groups base their claims on false premises. Standard tests will not solve many of the problems of instruction; at the same time the teacher's judgment is oftentimes unreliable. A middle ground is recommended where tests are used as one means of obtaining a better picture of pupil achievement. Every teacher of physical education should have at least one course in tests and measurements because those who are most familiar with tests have a better appreciation of their true place in education. The field needs persons qualified by training and experience to carry on research.

34. Should point systems be used?

Numerous point systems have been evolved by states and cities to stimulate the interest of students in physical education programs. This procedure enables a child to obtain a certain number of points or credits by achieving a prescribed excellence in numerous events, such as running, climbing, throwing, jumping, and chinning. Awards are frequently given to those who reach or exceed some fixed standard. The amount of bookkeeping and supervision entailed has caused point systems to be abandoned in numerous school districts where they were once hailed with enthusiastic interest. The chief objection to this type of event lies

in the fact that many teachers become slaves to the system and minimize other important objectives and activities of the program.

In some communities, point systems have been developed as substitutes for interscholastic competition. On this basis the practice may be justifiable, although a well-organized intramural program is preferable to any point system.

EQUIPMENT

35. Should physical education be conducted out-of-doors or indoors?

Whenever the weather permits, physical education should be conducted out-of-doors. Even the best ventilated and most hygienic gymnasium is not an equivalent substitute for the open air. It does not follow, however, that playrooms or gymnasiums are unnecessary. Such facilities are essential if the program is to develop normally. During inclement weather the windows of the gymnasium should be raised in order to approximate out-of-door conditions as nearly as possible.

36. How can physical education be given without indoor or outdoor play space?

It is a fallacious belief that a program of physical education can be carried on without indoor and outdoor facilities. Makeshift attempts to provide so-called exercise in narrow classroom aisles, improperly venti-

lated corridors, and dark, damp basements have resulted in much of the disrespect which some school people have for physical education. As stated elsewhere, adequate facilities and equipment are absolutely essential to the successful development of any educational program. Physical education is no exception to this rule. Where no indoor or outdoor facilities are available, it is better to do nothing than to carry on a slipshod, hit-or-miss list of activities. This does not mean that all classrooms are unsuitable for physical education; those with movable furniture or with wide aisles and several feet of open space in the front of the room may be used. Again, some corridors are reasonably well adapted to certain forms of activity. In congested city districts the street in front of the school may be closed for certain periods of the day and used as a play area. Classrooms and corridors, however, are not acceptable substitutes for a gymnasium or playroom, nor will a paved street take the place of a playground. Occasionally, in order that the need for improved facilities may be demonstrated, school officials have inaugurated a program of activities under conditions which are inadequate. Such a procedure is justifiable. It is the duty of school officials to secure suitable indoor and outdoor play space for each school as a part of the educational equipment. Public playgrounds or parks located near school buildings may serve as an adequate means of providing outdoor facilities.

37. What equipment is necessary for a satisfactory program of physical education?

Adequate facilities and equipment are to physical education what apparatus is to laboratories, work benches and tools are to industrial arts, cooking and sewing utensils are to home economics, and books and maps are to the classroom. Every group of children should have access to a piano or a victrola, several bean-bags, strips of thick carpeting or mats, playground balls and bats, volley balls, and soccer balls. All gymnasiums or playrooms ought to be equipped with climbing ropes, mats, and a horizontal bar. A part of the playground should be set aside for the younger children, and provided with swings, teeter boards, and sand boxes. Older children need to have areas marked out for games and contests.

38. Are special costumes needed in physical education?

Unless the elementary school program is so arranged that a period in excess of thirty minutes in length is given, it is doubtful if special costumes are needed. However, rubber-soled shoes are essential. The chief function of class instruction is to teach and provide practice in the different skills or techniques associated with games, self-testing activities, or rhythmic activities. For this type of work no special uniform need be worn. If costumes are required, they should be of such material and design that they can be used later in the junior high school.

PUBLIC EXHIBITIONS AND MUNICIPAL RELATIONSHIPS

39. Are public demonstrations and exhibitions justifiable?

The answer to this question depends upon the type of demonstration or exhibition. In some communities a large part of the year is spent in preparation for these spectacles. Educationally, this is an unsound practice. If, on the other hand, the exhibition is used to demonstrate to the public the types of activity used in the regular school program and to point out the need of improved equipment or facilities, there can be no criticism. As a matter of fact, properly organized and efficiently conducted public demonstrations may serve as an effective agency for desirable school publicity.

40. What connection should exist between the school program of physical education and the recreational activities of playgrounds and parks?

A very close connection is imperative. Children should be taught in the school to develop skills and techniques in the various activities which will be made available on the playgrounds. Administrative separation of schools and playgrounds is a mistake. Moreover, all playgrounds should be located and maintained with the needs of the school children as the determining factors.

Where separate boards control playgrounds and

schools, it is essential that full coöperation exist between them. To insure this coöperation some progressive communities have appointed the director of school health and physical education as superintendent of recreation, with assistants assigned to the different activities. Such an arrangement permits of coöperative management and effective control over closely related activities.

COURSE OF STUDY

41. What steps should be considered in planning the course of study?

Briefly, the steps in planning the course of study may be stated as follows:

1. Organize working committees of classroom teachers for various grade groups, under the direction of experts.[1]

2. Hold frequent meetings to determine the techniques to be employed for the selection and organization of objectives and content.

3. Present sections of the first draft of committee reports to the entire group for suggestions and criticisms.

4. Assign different teaching units of the material as prepared to various teachers to be tried out under actual working conditions.

[1] It is convenient oftentimes to group together two or even three grades for each committee.

5. Revise these teaching units according to the findings and suggestions of those who have worked with them.

6. Construct a tentative course of study (preferably recorded in mimeographed form) to be used for one year. Urge teachers to indicate desirable changes on blank sheets inserted in the manual, and to experiment, under direction, with different methods and procedures.

Courses of study should be revised continually. The task of constructing them cannot be completed once and for all time. To this end, it is advisable to prepare the courses in loose-leaf form so that changes can be made more easily.

42. Should the elementary supervisor be prepared to supervise physical education?

An increasing number of elementary supervisors are prepared, by experience and training, to assist classroom teachers with physical education. This practice is to be commended, since it insures a better articulation of physical activity with other school subjects. It is probably true that a clearer understanding of child nature has resulted in the increased use of games as a means of vitalizing class instruction in the academic subjects. In addition to the trained general supervisor, however, trained supervisors of physical education are employed in the more progressive public school systems.

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PART III

ORGANIZATION AND ADMINISTRATION

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ORGANIZATION AND ADMINISTRATION

In this brief section are considered those items in personnel that bear upon the health and physical education program as a whole. The techniques of this combined field have become so specialized that in many cities the same care is given to the selection of the director of health and physical education as to the selection of executives in other administrative offices of the school system.

INTRODUCTION

1. Is too much emphasis placed on the importance of health and physical education?

At times some school men are led to believe that too much emphasis is placed on the importance of health and physical education, or, as some phrase it, "the tail is wagging the dog." This mistaken idea may be corrected when it is understood that the present large, coördinated movement incorporates several phases of work that previously called for separate expenditures for such activities as school hygiene, health

instruction, health service, gymnastics, interscholastic athletics, intramural athletics, community play, and recreation. The coordination of all these agencies naturally results in an administrative division of some magnitude. In addition to the essential school work, the program reaches out into the community in the form of adult recreation activities, contests in sports and games, vacation activities for younger children, boy and girl scouts' organizations, athletic clubs, excursions, festivals, pageants, and numerous allied activities. Thus, instead of too great prominence being given to work, there is a coördination of many closely related agencies which results in administrative efficiency.

PERSONNEL

2. What can be done about the large number of elementary teachers who are unsympathetic toward health education and physical education?

Most of us are unsympathetic toward, or react adversely to, situations with which we are not familiar. As a general rule, this tendency increases with age. Observations indicate that teachers with years of experience may discredit the values to be derived from programs of health and physical education. Again, it is a human tendency to consider a new situation in terms of past experiences. Greater progress has been made in stimulating interest in health education and activity programs during the past decade than in many

preceding generations. A large number of elementary teachers have received no instruction in this field during their attendance at public schools or teacher-training institutions. Is it any wonder that they look askance at the emphasis which leading educators and those who have been especially trained in health and physical education place upon the importance of this program?

There are at least four ways of arousing the interest of classroom teachers in health and physical education:

1. Supply them with the more recent books and magazines dealing with general education and with this special field.

2. Urge them to attend summer sessions or to take extension courses.

3. Provide instruction in this phase of education at teachers' meetings and teachers' institutes.

4. Employ well-prepared supervisors who can assist teachers in the development of suitable programs.

3. How should health education and physical education in the schools be organized and administered?

The various interests of health work and physical education should be organized into one department with the executive officer designated as director, or supervisor, or assistant superintendent. Certain assistants will be necessary who will have charge of health supervision of plants and health service (chief medical officer), health teaching, physical education

in the grades, physical education in the high school, etc., depending upon the size of the school population.

In this plan the physician in charge of health service would be subordinate to the department head, and rightly so, since the most important objectives are educative in scope in an educational set-up. No competent director would attempt to pass upon the technical points in the health examination, but he would have an opinion regarding the desirability of examining all children, the use of clinics, and other non-technical questions or administrative policies.

4. What type of person should administer the program of health and physical education?

The scope of health and physical education makes apparent the need of a strong administrative control. "Some states and some cities consider this responsibility second only to that of the superintendent of schools; some even go so far as to confer upon the individual entrusted with this work the title, assistant superintendent of schools." [1] The physician without educational and special professional training is not a suitable chief administrator, nor is the person trained only in athletics, or in gymnastics, or in health teaching. The tendency at the present time is to select a person with educational qualifications, since the work is primarily educational in character; hence a doctor of philosophy trained in the professional aspects of

[1] Mitchell, E. D. In *School of Education Bulletin, University of Michigan,* December, 1929, p. 35.

health and physical education [1] is preferable to a doctor of medicine. Health and physical education are viewed increasingly as a division of education and not as a special service outside the general field.

5. What training does the supervisor of health and physical education need?

The first essential is a thorough understanding of general education: its principles, psychology, sociology, and philosophy. In addition, the successful supervisor must be well grounded in the biological sciences. With regard to health and physical education itself, the training includes organization and administration of the program, principles, methods, supervision, and measurement, as well as sufficient practice in developing satisfactory techniques in the activities, together with experience in teaching them. Four years of training is necessary to become proficient in the above requirements. There is a growing tendency to increase the period of preparation to five years. This does not include actual teaching experience which is highly desirable.

6. What type of training in health and physical education should be given to persons being prepared for classroom teaching?

Teachers trained in normal schools and state teachers colleges should be prepared to assist in caring for the items connected with health supervision and

[1] Williams, J. F. *Principles of Physical Education,* pp. 361-364. W. B. Saunders Company, Philadelphia, 1927.

service, to give instruction in hygiene, and to lead children in physical activities throughout the first six grades. These duties require a groundwork in science, health education materials and methods, instruction in the theory and practice of games, rhythms, stunts, folk dancing, clog and character dancing, and gymnastics.

7. What type of supervision should be given the classroom teacher?

Classroom teachers should be assisted in interpreting the course of study and in developing a satisfactory program of health and physical education. This may be accomplished through visitation, conferences, and demonstrations. The grade teacher should be encouraged to accept the responsibility for the program as she accepts responsibility for other school subjects, and to regard the supervisor as a friend or counselor who may be called upon for advice or aid in making the work more effective. The supervisor should follow a regular schedule and visit each classroom teacher about once a month. It is recommended that sufficient time be provided for the supervisor to give added assistance to new and inexperienced teachers.

Oftentimes these supervisors are merely special teachers who visit the classrooms periodically for the purpose of teaching a lesson which is practiced until she comes again a week, or a month, later. This is supervision in name only and is to be condemned.

8. What should be the relationship of the supervisor or director of health and physical education to the principal of a school?

The principal as the chief executive officer is responsible for all activities and services of the school. The supervisor or director of health and physical education should understand that the success of his program is largely dependent upon the coöperation of the building principal. Most of the difficulties which arise grow out of a misunderstanding between the principal and supervisor regarding the mutual responsibilities which must be assumed by each.

When a disagreement cannot be settled by conference, it should be possible for either the supervisor or the principal to refer the matter to the superintendent, without going over the head of the other. Clear understanding of this relationship avoids needless difficulties.

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